1634

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/500,135
DATE: 08/01/2000
TIME: 12:35:50

Input Set : A:\A688931.app
Output Set: N:\CRF3\08012000\I500135.raw

Does Not Comply
Corrected Diskette Needed

pg 4-5

```
<110> APPLICANT: Estell, David
      Harding, Fiona
<120> TITLE OF INVENTION: PROTEINS PRODUCING AN ALTERED IMMUNOGENIC RESPONSE AND
      METHODS OF MAKING AND USING THE SAME
<130> FILE REFERENCE: A-688 3/JJB/DAV
<140> CURRENT APPLICATION NUMBER: 09/500,135
<141> CURRENT FILING DATE: 2000-02-08
<150> PRIOR APPLICATION NUMBER: 09/060,872
<151> PRIOR FILING DATE: 1998-01-15
<160> NUMBER OF SEQ ID NOS: [illegible]
<170> SOFTWARE: PatentIn Ver. 2.1
<210> SEQ ID NO: 1
<211> LENGTH: [illegible]
<212> TYPE: DNA
<213> ORGANISM: Bacillus amyloliquefaciens
<220> FEATURE:
<221> NAME/KEY: mat_peptide
<222> LOCATION: (1)..([illegible])
<220> FEATURE:
<221> NAME/KEY: CDS
<222> LOCATION: (96)..(1241)
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (96)..(98)
<223> OTHER INFORMATION: The nnn at positions 96 through 98 represents atg
      which is to code for methionine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (582)..(584)
<223> OTHER INFORMATION: The nnn at positions 582 through 584 represents
      Xaa, which in a preferred embodiment (aat) is to
      code for asparagine, but which may also code for
      proline.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (585)..(587)
<223> OTHER INFORMATION: The nnn at positions 585 through 587 represents
      Xaa, which in a preferred embodiment (cct) is to
      code for proline, but which may also code for
      asparagine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (597)..(599)
<223> OTHER INFORMATION: The nnn at positions 597 to 599 represents Xaa
      which in a preferred embodiment (aac) is to code
      for asparagine, but which may also code for
      aspartic acid.
```

FYI: ? gtg codes for valine

RAW SEQUENCE LISTING DATE: 08/01/2000
PATENT APPLICATION: US/09/500,135 TIME: 12:37:30

Input Set : A:\A688931.app
Output Set: N:\CRF3\08012000\I500135.raw

```
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (678)..(680)
<223> OTHER INFORMATION: The nnn at positions 678 through 680 represents
      Xaa, which in a preferred embodiment (gca) is to
      code for alanine, but which may also code for
      serine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (681)..(683)
<223> OTHER INFORMATION: The nnn at positions 681 through 683 represents
      Xaa, which in a preferred embodiment (tca) is to
      code for serine, but which may also code for
      alanine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (708)..(710)
<223> OTHER INFORMATION: The nnn at positions 708 through 710 represents
      Xaa, which in a preferred embodiment (gct) is to
      code for alanine, but which may also code for
      aspartic acid.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (711)..(713)
<223> OTHER INFORMATION: The nnn at positions 711 through 713 represents
      Xaa, which in a preferred embodiment (gac) is to
      code for aspartic acid, but which may also code
      for alanine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (888)..(890)
<223> OTHER INFORMATION: The nnn at positions 888 through 890 represents
      Xaa, which in a preferred embodiment (act) is to
      code for threonine, but which may also code for
      serine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (891)..(893)
<223> OTHER INFORMATION: The nnn at positions 891 through 893 represents
      Xaa, which in a preferred embodiment (tcc) is to
      code for serine, but which may also code for
      threonine.
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (1167)..(1169)
<223> OTHER INFORMATION: The nnn at positions 1167 through 1169 represents
      Xaa, which in a preferred embodiment (gaa) is to
      code for glutamic acid, but which may also code
      for glutamine.
```

RAW SEQUENCE LISTING DATE: 08/01/2000
PATENT APPLICATION US/09/500,135 TIME: 12:53:00

Input Set : A:\A688931.app
Output Set: N:\CRF3\08012000\I500135.raw

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123 ttattctgca aatgaaaaaa aggagaggat aaaga nnn aga ggc aaa aaa gta    113
124                                   Xaa Arg Gly Lys Lys Val
125                                               -105
127 ttg atc agt tta ctg ttt gct tta gcg tta atc ttt acg atg gcg ttc    161
128 Trp Ile Ser Leu Leu Phe Ala Leu Ala Leu Ile Phe Thr Met Ala Phe
129     -100                -95                 -90
131 ggc agc aca tcc tct gcc cag gcg gca ggg aaa tca aac ggg gaa aag    209
132 Gly Ser Thr Ser Ser Ala Gln Ala Ala Gly Lys Ser Asn Gly Glu Lys
133 -85                 -80                 -75                 -70
135 aaa tat att gtc ggg ttt aaa cag aca atg agc acg atg agc gcc gct    257
136 Lys Tyr Ile Val Gly Phe Lys Gln Thr Met Ser Thr Met Ser Ala Ala
137                 -65                 -60                 -55
139 aag aag aaa gat gtc att tct gaa aaa ggc ggg aaa gtg caa aag caa    305
140 Lys Lys Lys Asp Val Ile Ser Glu Lys Gly Gly Lys Val Gln Lys Gln
141             -50                 -45                 -40
143 ttc aaa tat gta gac gca gct tca gct aca tta aac gaa aaa gct gta    353
144 Phe Lys Tyr Val Asp Ala Ala Ser Ala Thr Leu Asn Glu Lys Ala Val
145         -35                 -30                 -25
147 aaa gaa ttg aaa aaa gac ccg agc gtc gct tac gtt gaa gaa gat cac    401
148 Lys Glu Leu Lys Lys Asp Pro Ser Val Ala Tyr Val Glu Glu Asp His
149     -20                 -15                 -10
151 gta gca cat gcg tac gcg cag tcc gtg cct tac ggc gta tca caa att    449
152 Val Ala His Ala Tyr Ala Gln Ser Val Pro Tyr Gly Val Ser Gln Ile
153     -5              -1  1               5                   10
155 aaa gcc cct gct ctg cac tct caa ggc tac act gga tca aat gtt aaa    497
156 Lys Ala Pro Ala Leu His Ser Gln Gly Tyr Thr Gly Ser Asn Val Lys
157                 15                  20                  25
159 gta gcg gtt atc gac agc ggt atc gat tct tct cat cct gat tta aag    545
160 Val Ala Val Ile Asp Ser Gly Ile Asp Ser Ser His Pro Asp Leu Lys
161         30                  35                  40
W--> 163 gta gca ggc gga gcc agc atg gtt cct tct gaa aca nnn nnn ttc caa    593
W--> 164 Val Ala Gly Gly Ala Ser Met Val Pro Ser Glu Thr Xaa Xaa Phe Gln
165         45                  50                  55
W--> 167 gac nnn aac tct cac gga act cac gtt gcc ggc aca gtt gcg gct ctt    641
W--> 168 Asp Xaa Asn Ser His Gly Thr His Val Ala Gly Thr Val Ala Ala Leu
169     60                  65                  70
W--> 171 aat aac tca atc ggt gta tta ggc gtt gcg cca agc nnn nnn ctt tac    689
W--> 172 Asn Asn Ser Ile Gly Val Leu Gly Val Ala Pro Ser Xaa Xaa Leu Tyr
173 75                  80                  85                  90
W--> 175 gct gta aaa gtt ctc ggt nnn nnn ggt tcc ggc caa tac agc tgg atc    737
W--> 176 Ala Val Lys Val Leu Gly Xaa Xaa Gly Ser Gly Gln Tyr Ser Trp Ile
177                 95                  100                 105
179 att aac gga atc gag tgg gcg att gca aac aat atg gac gtt att aac    785
180 Ile Asn Gly Ile Gln Trp Ala Ile Ala Asn Asn Met Asp Val Ile Asn
181         110                 115                 120
183 atg agc ctc ggc gga cct tct ggt tct gct gct tta aaa gcg gca gtt    833
184 Met Ser Leu Gly Gly Pro Ser Gly Ser Ala Ala Leu Lys Ala Ala Val
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/500,135

Input Set: A:\A688931.app
Output Set: N:\CRF3\0801_000\I500135.raw

W--> 191 gaa ggc nnn nnn ggc agc tca agc aca gtg ggc tac cct ggt aaa tac 929
W--> 192 Glu Gly Xaa Xaa Gly Ser Ser Ser Thr Val Gly Tyr Pro Gly Lys Tyr

W--> 211 tct aag cac ccg aac tgg aca aac act caa gtc cgc agc agt tta nnn 1169
W--> 212 Ser Lys His Pro Asn Trp Thr Asn Thr Gln Val Arg Ser Ser Leu Xaa

W--> 238 Xaa Arg Gly Lys Lys Val Trp Ile Ser Leu Leu Phe Ala Leu Ala Leu

See item 10 on Error Summary Sheet

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/500,135

Input Set : A:\A688931.app
Output Set: N:\CRF3\08012000\I500135.raw

[illegible]

W--> 258 Glu Thr Xaa Xaa Phe Gln Asp Xaa Asn Ser His Gly Thr His Val Ala

[illegible]

W--> 262 Pro Ser Xaa Xaa Leu Tyr Ala Val Lys Val Leu Gly Xaa Xaa Gly Ser

[illegible]

W--> 270 Val Ala Ala Ala Gly Asn Glu Gly Xaa Xaa Gly Ser Ser Ser Thr Val

[illegible]

W--> 282 Val Arg Ser Ser Leu Xaa Asn Thr Thr Thr Lys Leu Gly Asp Ser Phe

[illegible]

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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VERIFICATION SUMMARY                              DATE: [illegible]
PATENT APPLICATION    US/09/500,135               TIME: [illegible]

Input Set:    A:\A688931.app
Output Set:   N:\CRF3\08012000\I500135.raw

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M:[illegible] Repeated in SeqNo=[illegible]
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L:[illegible] M:[illegible] W: Mandatory Feature missing, [illegible] not found for SEQ ID#:[illegible]
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